

SEQUENCE LISTING

<110> CHANG, Donald C  
LUO, Qian

<120> Modified Fluorescent Proteins

<130> M99/0321/US

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<160> 32

<170> PatentIn Ver. 2.1

<210> 1

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer

<220>

<221> CDS

<222> (3)..(38)

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Pro Ile Gly Asp Glu Val Asp Gly Pro Val Leu Leu  
1 5 10

39

<210> 2

<211> 12

<212> PRT

<213> Artificial Sequence

<223> Description of Artificial Sequence: PCR primer

<400> 2

Pro Ile Gly Asp Glu Val Asp Gly Pro Val Leu Leu  
1 5 10

<210> 3

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: PCR primer

<400> 3

Ref B1

0551380 041800

gtaaaaggac agggccgctc acttcatcgc caattggag

39

<210> 4  
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<213> Homo sapiens

<400> 4  
Asp Glu Val Asp  
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<210> 5  
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<212> DNA  
<213> Artificial Sequence

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<223> Description of Artificial Sequence: Possible  
cleavage site

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Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val  
1 5 10 15  
  
gaa tta gat ggt gat gtt aat ggg cac aaa ttt tct gtc agt gga gag 96  
Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu  
20 25 30  
  
ggt gaa ggt gat gca aca tac gga aaa ctt acc ctt aaa ttt att tgc 144  
Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys  
35 40 45  
  
act act gga aaa cta cct gtt cca tgg cca aca ctt gtc act act ttc 192  
Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe  
50 55 60  
  
act tat ggt gtt caa tgc ttt tca aga tac cca gat cat atg aaa cag 240  
Thr Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln  
65 70 75 80  
  
cat gac ttt ttc aag agt gcc atg ccc gaa ggt tat gta cag gaa aga 288  
His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg  
85 90 95  
  
act ata ttt ttc aaa gat gac ggg aac tac aag aca cgt gct gaa gtc 336  
Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val  
100 105 110

008740 0827550

aag ttt gaa ggt gat acc ctt gtt aat aga atc gag tta aaa ggt att 384  
Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile  
115 120 125

gat ttt aaa gaa gat gga aac att ctt gga cac aaa ttg gaa tac aac 432  
Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn  
130 135 140

tat aac tca cac aat gta tac atc atg gca gac aaa caa aag aat gga 480  
Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly  
145 150 155 160

atc aaa gtt aac ttc aaa att aga cac aac att gaa gat gga agc gtt 528  
Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val  
165 170 175

caa cta gca gac cat tat caa caa aat act cca att ggc gat ggc cct 576  
Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro  
180 185 190

gtc ctt tta cca gac aac cat tac ctg tcc aca caa tct gcc ctt tcg 624  
Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser  
195 200 205

aaa gat ccc aac gaa aag aga gac cac atg gtc ctt ctt gag ttt gta 672  
Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val  
210 215 220

aca gct gct ggg att aca cat ggc atg gat gaa cta tac aaa taataa 720  
Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys  
225 230 235

<210> 6

<211> 238

<212> PRT

<213> Artificial Sequence

<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 6

Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val  
1 5 10 15

Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu  
20 25 30

Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys  
35 40 45

Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe  
50 55 60

Thr Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln  
65 70 75 80

008140"08ET550

His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg  
85 90 95

Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val  
100 105 110

Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile  
115 120 125

Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn  
130 135 140

Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly  
145 150 155 160

Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val  
165 170 175

Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro  
180 185 190

Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser  
195 200 205

Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val  
210 215 220

Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys  
225 230 235

<210> 7  
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<212> PRT  
<213> Homo sapiens

<400> 7  
Tyr Val His Asp  
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<210> 8  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Caspase  
cleavage site

<400> 8  
Asp Glu His Asp  
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0951380-041800

<210> 9  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 9  
Trp Glu His Asp  
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<210> 10  
<211> 4  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Caspase  
cleavage site

<400> 10  
Leu Glu His Asp  
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<210> 11  
<211> 4  
<212> PRT  
<213> Homo sapiens

<400> 11  
Val Glu Ile Asp  
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<210> 12  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Caspase  
cleavage site

<400> 12  
Leu Glu Thr Asp  
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<210> 13  
<211> 4  
<212> PRT

008740"08ET5560

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Caspase  
cleavage site

<400> 13

Leu Glu His Asp

1

<210> 14

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 14

Glu Val Asp

1

<210> 15

<211> 3

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 15

Asp Glu Val

1

<210> 16

<211> 4

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 16

Asp Glu Asp Asp

1

<210> 17

<211> 5

00340-08E5560

<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 17  
Asp Glu Val Asp Gly  
1 5

<210> 18  
<211> 2  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 18  
Glu Val  
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<210> 19  
<211> 6  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 19  
Asp Glu Val Asp Gly Thr  
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<210> 20  
<211> 5  
<212> PRT  
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<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 20  
Glu Val Asp Gly Pro  
1 5

<210> 21

008140 08E1560

<211> 5  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 21  
Glu Val Asp Met Gly  
1 5

<210> 22  
<211> 5  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 22  
Glu Val Asp Ser Gly  
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<210> 23  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 23  
Glu Val Asp Arg Gly  
1 5

<210> 24  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 24  
Glu Val Asp Gly Gly  
1 5

008140-08ET560



<210> 25  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 25  
Ala Asp Glu Val Asp Ile  
1 5

<210> 26  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 26  
Trp Asp Glu Val Asp Val  
1 5

<210> 27  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 27  
Thr Asp Asp Val Asp Leu  
1 5

<210> 28  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 28  
Trp Asp Glu Val Asp Ala  
1 5

008140 08E1550

<210> 29  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 29  
Arg Asp Glu Val Asp Phe  
1 5

<210> 30  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 30  
Asp Glu Val Asp Gly  
1 5

<210> 31  
<211> 4  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Possible  
cleavage site

<400> 31  
Glu Val Asp Gly  
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<210> 32  
<211> 239  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: EGFP -  
mammalian enhanced GFP

<400> 32  
Met Val Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu  
1 5 10 15

008140 08E1560

Sub B1

Val	Glu	Leu	Asp	Gly	Asp	Val	Asn	Gly	His	Lys	Phe	Ser	Val	Ser	Gly	
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Glu	Gly	Glu	Gly	Asp	Ala	Thr	Tyr	Gly	Lys	Leu	Thr	Leu	Lys	Phe	Ile	
		35					40					45				
Cys	Thr	Thr	Gly	Lys	Leu	Pro	Val	Pro	Trp	Pro	Thr	Leu	Val	Thr	Thr	
	50					55					60					
Leu	Thr	Tyr	Gly	Val	Gln	Cys	Phe	Ser	Arg	Tyr	Pro	Asp	His	Met	Lys	
65					70					75					80	
Gln	His	Asp	Phe	Phe	Lys	Ser	Ala	Met	Pro	Glu	Gly	Tyr	Val	Gln	Glu	
			85						90					95		
Arg	Thr	Ile	Phe	Phe	Lys	Asp	Asp	Gly	Asn	Tyr	Lys	Thr	Arg	Ala	Glu	
			100					105					110			
Val	Lys	Phe	Glu	Gly	Asp	Thr	Leu	Val	Asn	Arg	Ile	Glu	Leu	Lys	Gly	
		115					120					125				
Ile	Asp	Phe	Lys	Glu	Asp	Gly	Asn	Ile	Leu	Gly	His	Lys	Leu	Glu	Tyr	
	130					135					140					
Asn	Tyr	Asn	Ser	His	Asn	Val	Tyr	Ile	Met	Ala	Asp	Lys	Gln	Lys	Asn	
145					150					155					160	
Gly	Ile	Lys	Val	Asn	Phe	Lys	Ile	Arg	His	Asn	Ile	Glu	Asp	Gly	Ser	
			165					170						175		
Val	Gln	Leu	Ala	Asp	His	Tyr	Gln	Gln	Asn	Thr	Pro	Ile	Gly	Asp	Gly	
			180					185					190			
Pro	Val	Leu	Leu	Pro	Asp	Asn	His	Tyr	Leu	Ser	Thr	Gln	Ser	Ala	Leu	
		195				200						205				
Ser	Lys	Asp	Pro	Asn	Glu	Lys	Arg	Asp	His	Met	Val	Leu	Leu	Glu	Phe	
	210					215					220					
Val	Thr	Ala	Ala	Gly	Ile	Thr	Leu	Gly	Met	Asp	Glu	Leu	Tyr	Lys		
225					230					235						

008740-0887560